

M E R R T T

Information Resources



INTRODUCTION

This module provides information about resources, including shipping papers and state and federal resources that can be of assistance to you at the scene of an incident involving radioactive material. When using shipping papers you can quickly and accurately assess the nature and quantity of the material being transported. State and federal agencies are organized specifically to handle and manage situations involving radioactive material.

PURPOSE

The purpose of this module is to increase your awareness of the resources available to you for use when responding to an incident involving radioactive material.

MODULE OBJECTIVES

Upon completing this module, you will be able to:

1. Identify information sources that can provide responders with details about a radioactive material shipment.
2. Identify the information contained on shipping papers used for transporting radioactive material.
3. Identify state and federal resources that provide assistance to on-scene responders.

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INFORMATION SOURCES

The following are information sources that you can use at the scene of a radioactive material transportation incident to obtain more information about the material contained in the shipment:

- Package Markings
- Package Labels
- Vehicle Placards
- Shipping Papers

Package Markings

Package markings are designed to inform transportation workers and emergency response personnel about a package's radioactive contents. Valuable information that can be obtained by a package's markings includes:

- The material's proper shipping name and UN ID number
- Type of package if "Type A" or "Type B"
- Orientation arrows indicating the presence of liquids

Package Labels

When required, radiation-warning labels will appear on two opposite sides of the package. Each label will specify the contents of the package, and the activity of the material contained within the package.

Vehicle Placards

The presence of a radioactive placard indicates that the transport vehicle contains at least one package bearing the "Radioactive Yellow-III" warning label or that the shipment contains radioactive material being transported as exclusive use¹.

¹ "Exclusive use" describes a single consignor of a conveyance for which all initial, intermediate, and final loading and unloading are carried out in accordance with the direction of the consignor or consignee.



Shipping Papers

Shipping papers can be a valuable resource for responders who need more information about the nature of the hazardous material being transported. As with other hazardous material shipments, certain essential information must be included on shipping papers.

The availability of a complete and correct shipping paper description for a hazardous material shipment is vital not only to the carrier and the consignee, but also to emergency response personnel in the event of an incident.

Shipping papers are required for all modes of transport. Drivers of motor vehicles transporting hazardous material are required to have shipping papers readily available to response personnel. If possible, locate the driver to determine the location of the shipping papers.

A vehicle's shipping papers are usually found in a holder mounted on the inside of the driver's side door, or within reach of the driver. Though shipping papers are important, they should not be retrieved at the expense of safety. No responder should compromise their own safety to retrieve shipping papers.

If you can retrieve shipping papers without significant risk, you should do so at the earliest opportunity. Shipping papers will include the name, address, and telephone number for both the shipper and receiver. Information found on shipping papers that is specific to radioactive material includes:

- Identity of each material/radionuclide (e.g., Mo⁹⁹, Tl²⁰¹, I¹²³)
- Physical and chemical form of each material (e.g., salt/solid)
- Activity contained in each package
- Category of label applied to each package (e.g., Radioactive Yellow-II)
- Assigned transport index for each package (Yellow-II and Yellow-III labels only)
- Fissile controls information² (if applicable)

² Applies to fissile material that has the capability of undergoing fission (splitting of atom's nucleus) and thus requires controls to assure nuclear criticality safety during transport.

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Depending on the mode of transport, shipping papers may be located in any of the following places:

- In the cab of the motor vehicle
- In the possession of a train crew member
- In a holder on the bridge of a vessel
- In the possession of a an aircraft's pilot

If you suspect that the shipping papers are contaminated, the following steps can be used to prevent the spread of contamination when removing shipping papers from the hot zone.

In the hot zone, and with the protection of appropriate Personal Protective Equipment (PPE):

- Separate each page
- Carefully wipe off any liquid or other material from the shipping papers' surfaces
- Place each page into a separate plastic bag. (Clear food storage bags work well; they lay flat and are large enough to hold a flat 8.5" x 11" sheet)
- Pass bags through the decontamination line and decontaminate (decon) the outside of each bag by wiping it off
- In the clean zone, place another plastic bag over the outside of the original bag
- Handle the documents carefully until they can be monitored for contamination. If possible, make photocopies of the documents (through the bags) and place the originals in a safe location

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SOURCES OF ASSISTANCE

Identifying resources and knowing how and where to get assistance is critical during a transportation incident. Emergency response personnel should identify available resources, and be familiar with the procedures for getting assistance well in advance of any occurrence. Some commonly available resources are:

Emergency Response Telephone Number - Shipping papers must provide an emergency response telephone number. The person answering the phone must be knowledgeable of the material and mitigation actions to be taken, or must have immediate access to a person who has the required knowledge.

Emergency Response Guidebook (ERG) - The ERG is an important and valuable reference at incident scenes and can be found in most response vehicles. Emergency responders should be familiar with it. Guides 161 through 166 cover emergency response actions for incidents involving radioactive material.

State Radiological Agency - Most states have a radiological health agency. The state radiological health agency may be able to provide additional assistance/resources for a radioactive material related incident. The agency can either provide specialized assistance, or identify other available resources.

Federal Response Agencies - Federal agencies become involved in an emergency response effort when requested to do so by state, tribal, or local government officials. Local response departments should always contact federal response agencies through their appropriate state agency.

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Federal Resources Available for Radiological Emergencies

National Response Center (NRC) - The primary function of the National Response Center is to serve as the sole national point of contact for reporting all oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. In addition to gathering and distributing spill data for Federal On-Scene Coordinators and serving as the communications and operations center for the National Response Team, the NRC maintains agreements with a variety of federal entities (including DOE) to make additional notifications regarding incidents meeting established criteria. The 24-hour emergency response phone number for the National Response Center is (800) 424-8802.

Nuclear Regulatory Commission (NRC)³ - The U.S. Nuclear Regulatory Commission is an independent agency established by Congress to ensure adequate protection of the public health and safety, the common defense and security, and the environment in the use of nuclear materials in the United States. The NRC's scope of responsibility includes regulation of commercial nuclear power reactors; nonpower research, test, and training reactors; nuclear fuel cycle facilities; medical, academic, and industrial uses of nuclear materials; and, the transport, storage, and disposal of nuclear materials and waste. The NRC has a response team that can be dispatched from one of its four Regional Offices. The 24-hour emergency response contact number for the Nuclear Regulatory Commission is (301) 816-5100.

U.S. Department of Energy (DOE) - Contact through Regional Coordinating Office at the 24-hour number listed on page 10.

³ Both the Nuclear Regulatory Commission and National Response Center are commonly referred to as the "NRC." When making the determination to contact one of these agencies, be specific about which agency you are referring to.

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Department of Energy Resources

The information below summarizes major DOE response and informational resources and other major, non-DOE resources available to emergency response organizations. These resources are obtained through your region's DOE Regional Coordinating Office.

Resource: Radiological Assistance Program (RAP)

Specialty: Provides radiological assistance to other federal agencies; state, tribal, and local governments; and NRC licensees requesting assistance for events involving radioactive material.

DOE Responsible Organization: Appropriate Regional Coordinating Offices

Contributor of Resources: Numerous DOE Contractor Facilities

Resource: Accident Response Group (ARG)

Specialty: Primary accident response element for events or accidents involving nuclear weapons. Trained in weapon recovery and in evaluation, collection, handling, and mitigating radioactive and other weapons-associated hazards.

DOE Responsible Organization: Albuquerque Operations Office

Contributor of Resources: Sandia National Lab, Lawrence Livermore National Lab, Los Alamos National Lab, Remote Sensing Lab, Pantex Plant

Resource: Nuclear Emergency Search Team (NEST)

Specialty: Provide technical assistance to the Federal Bureau of Investigation (FBI). The technical assistance includes such support as locating nuclear or explosive material or devices that may be lost, stolen, or associated with bomb threats.

DOE Responsible Organization: Nevada Operations Office

Contributor of Resources: Sandia National Lab, Lawrence Livermore National Lab, Los Alamos National Lab, Remote Sensing Lab

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Resource: Federal Radiological Monitoring and Assessment Center (FRMAC)

Specialty: Temporary facility for production of compiled, quality-controlled monitoring and assessment data for the lead federal agency and the state, tribal, or local authorities involved in a radiological event.

DOE Responsible Organization: Nevada Operations Office

Contributor of Resources: Sandia National Lab, Lawrence Livermore National Lab, Los Alamos National Lab, Remote Sensing Lab, Various RAP Teams

Resource: Aerial Measuring System (AMS)

Specialty: Aerial detection system for measuring extremely low levels of gamma radiation and locating and tracking airborne radiation. The system also includes aerial photography and multi-spectral scanning capabilities.

DOE Responsible Organization: Nevada Operations Office

Contributor of Resources: Remote Sensing Lab

Resource: Atmospheric Release Advisory Capability (ARAC)

Specialty: Computer-based, emergency response and preparedness system that provides rapid predictions of the transport, diffusion, and deposition of radionuclides or other toxic material released into the atmosphere.

DOE Responsible Organization: Oakland Operations Office

Contributor of Resources: Lawrence Livermore National Lab

Resource: Radiation Emergency Assistance Center/ Training Site (REAC/TS)

Specialty: 24-hour direct or consultative assistance regarding medical and health physics problems associated with radiation accidents. Training in medical management for radiation accidents.

DOE Responsible Organization: Oak Ridge Operations Office

Contributor of Resources: Oak Ridge Institute for Science and Education (ORISE)

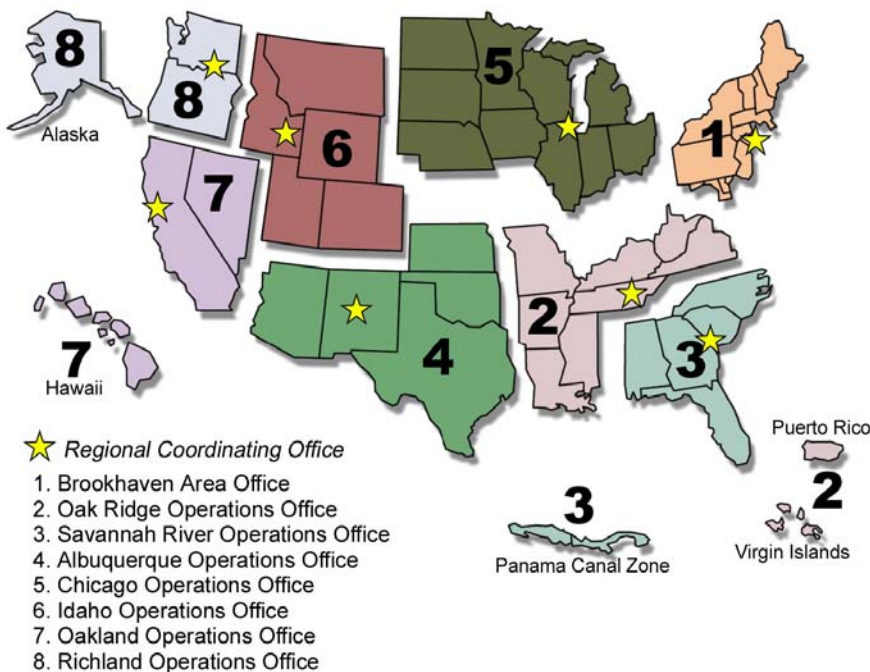
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Contacting DOE Through Your Regional Coordinating Office

Any state, tribal, local, or private sector organization needing radiological assistance can call their DOE Regional Coordinating Office (RCO) to get information, advice, or assistance. The DOE Regional Response Coordinator (RRC) decides what action is needed based upon the request. The DOE RCO also ensures that appropriate state or tribal personnel are contacted in order to effect the appropriate involvement of state or tribal officials and resources. If necessary, the RCO sends a federal team to the accident site to help or advise the authorities in charge.

U.S. Department of Energy Regional Coordinating Offices



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Region	Regional Coordinating Office	Location	24-Hour Number
1	Brookhaven Area Office	Upton, L.I. NY	(631) 344-2200
2	Oak Ridge Operations Office	Oak Ridge, TN	(865) 576-1005
3	Savannah River Operations Office	Aiken, SC	(803) 725-3333
4	Albuquerque Operations Office	Albuquerque, NM	(505) 845-4667
5	Chicago Operations Office	Argonne, IL	(630) 252-4800
6	Idaho Operations Office	Idaho Falls, ID	(208) 526-1515
7	Oakland Operations Office	Oakland, CA	(925) 422-8951
8	Richland Operations Office	Richland, WA	(509) 373-3800

All above phone numbers verified correct as of June, 2001.

Check Your Understanding



1. Drivers of motor vehicles containing hazardous material are required to have _____ readily available to response personnel.
2. Shipping papers are usually found:
 - a) in the sleeper compartment of the vehicle
 - b) above the visor
 - c) in a holder mounted on the inside of the driver's side door
 - d) in the glove compartment in an envelope labeled "shipping papers"
3. Your state _____ agency may be able to provide assistance/ resources for a radioactive material related incident.
4. Federal response agencies usually become involved in responding to a radioactive material incident when:
 - a) requested by state, tribal, or local government officials
 - b) any of the material transported bears the Radioactive Yellow-III label
 - c) the incident occurs on U.S. Interstate highways
 - d) the shipment is placarded and transported as exclusive use
5. Radiological assistance from the Department of Energy is contacted through the _____.
6. In which DOE region is your state located? _____

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ANSWERS

1. shipping papers
2. c
3. radiological
4. a
5. Regional
6. Coordinating Office
9. See map on pg. 9